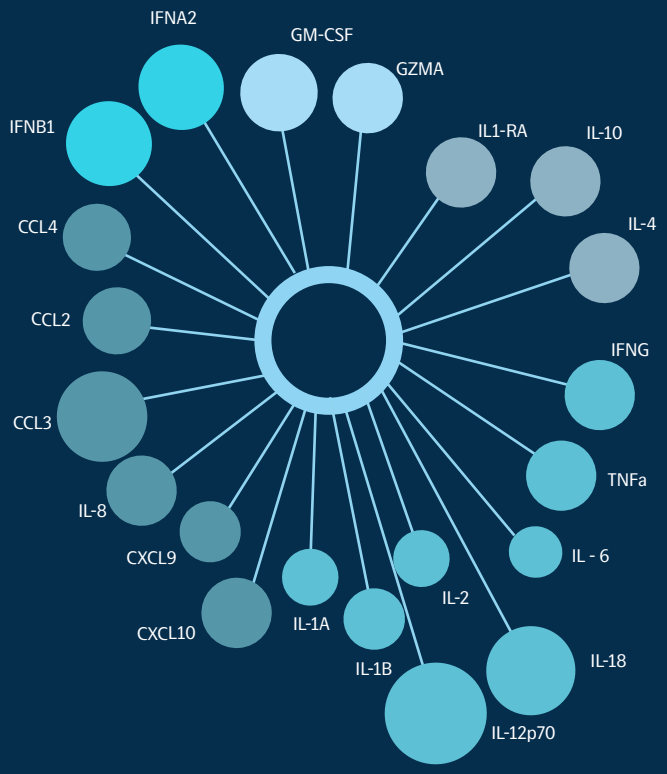
Introducing Olink® Flex: Cytokine Storm Panel

Biomarker signatures for deeper pathological insights

Cytokine storm syndromes can be triggered by pathogens or multiple immune events, and are characterized by dysregulated systemic inflammation with excessive levels of circulating cytokines. Recently, cytokine storm was in the spotlight as a major factor for severe COVID-19, where it may frequently be triggered by an impaired type I interferon response. Therefore, circulating cytokine monitoring has emerged as a critically informative, non-invasive tool. Analyzing cytokine signatures, rather than individual proteins, provides a more detailed and accurate picture of the underlying biology. Such studies can facilitate:

- Patient stratification
- Outcome prediction
- Risk assessment
- Monitoring disease progression
- Early treatment intervention

To meet these goals, cytokine profiles need to derive from technologies that produce high quality data, with the specificity to discriminate accurately among related proteins and the sensitivity to measure even the most low abundance targets.



The Olink® Flex Cytokine Storm panel includes pro- and anti-inflammatory molecules that are frequently monitored and found to be elevated in this pathological condition, such as IL-6, TNFa, IL-10, CXCL10, IL-8, etc. It also features highly relevant cytokines that are present at low levels, thus often absent in most commercially available panels (e.g. IL-1b, GM-CSF and interferon).

Key publications:

→ Hu Z, van der Ploeg K, Chakraborty S, et al. Early immune markers of clinical, virological, and immunological outcomes in patients with COVID-19: a multi-omics study. Elife (2022)

→ Feyaerts D, Hédou J, Gillard J, et al. et al. Integrated plasma proteomic and single-cell immune signaling network signatures demarcate mild, moderate, and severe COVID-19. Cell Reports Medicine (2022)

→ Byeon SK, Madugundu AK, Garapati K, et al. Development of a multiomics model for identification of predictive biomarkers for COVID-19 severity: a retrospective cohort study. The Lancet Digital Health (2022)

→ Palma Medina LM, Babačić H, Dzidic M, et al. et al. Targeted plasma proteomics reveals signatures discriminating COVID-19 from sepsis with pneumonia. Respiratory Research (2023)

Need more flexibility?

Olink® Flex allows you to optimize this panel with other validated assays from the Flex library or to build an entirely new panel that fits your research interests. Try the Flex panel builder on Olink® Insight now!

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